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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,611	03/01/2004	Eran Reshef	3269/5A	5171

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NEW YORK, NY 10022

EXAMINER

ARANI, TAGHI T

ART UNIT	PAPER NUMBER
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2139

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/790,611	Applicant(s) RESHEF ET AL.	
	Examiner Taghi T. Arani	Art Unit 2139	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 33-64 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 33-64 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/03/2007</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 33-64 have been examined and are pending.

#### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 59-63 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 59 is directed to a system comprising; “a first set of program instructions”, “a second set of program instructions” and a “third program set of program instructions”

Program instructions are non-statutory subject matters.

Claims 60-63 are also rejected by virtue of their dependencies.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 33-53, 56 and 59-64 are rejected under 35 U.S.C. 102(b) as being anticipated by Benzler, U.S. Pat. No. 5,821,871 issued Oct. 1998 (IDS filed 4/7/2007).

***Referring to claims 33, 45 and 64***, Benzler teaches an authentication method which uses as identification feature images, texts or sounds which are based on individual knowledge experiences of a person, see abstract.

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Benzler's authentication method uses a large quantity of person-specific psychometrical information (PSPI) as an identification characteristic which consists of a principal part (i.e. a challenge or questions) and a complement (response or answers component), see col. 6, lines 38-47, see also col. 7, lines 1-5.

In an exemplary telecommunications embodiment, Benzler's invention exchanges confidential data between a person P1 at a site S1 and a person P2 at a site S2 where two identical authentication devices are placed, see col. 9, lines 5-30. The device at S1 stores the PSPI of person P2, and the one at S2 that of person P1. Both devices are connected via digital communication network. Person P1 establishes contact with P2 by operating a signaling apparatus. The device at S2 transmits ten texts (that is a human ability challenge) one by one from its memory to the device at S1, where P1 pushes (i.e. responds) the function button "True" or False" after having checked each statement which appear on his/her display. After correctly identifying all statements as true or false, an actuator of the device at S2 signals the authenticity of person at S1.

Benzler further teaches that his invention is *a methodically self identifying where a person concerned demonstrates in the face of a third party that he/she is really a certain human being. That is, Benzler's authentication methods demonstrates that the responses received was provided by a human.*

**Referring to claims 34 and 35**, Benzler claims different characteristic matching (as a method of authentication or challenge- response) schemes and arrangements of person-specific psychometrical information (or PSPI), see col. 7, lines 41-51.

***Referring to claim 36,*** In an implementation of Benzler's invention in Identity card, the identity card is put into an authentication device, then a sufficient number of PSPI statements (i.e. challenges) is randomly released without their complements (i.e. responses) one after another, see col. 10, lines 35-57.

***Referring to claims 37 and 51,*** Benzler teaches that associated elements of PSPI is arranged in the form of a matrix or columns and a basic number (BZ) is attributed to columns from which a characteristic result number (EZ) is mathematically calculated, see col. 7, lines 45-67. This characteristic result number (i.e. noisy textual image or distorted visual representation) is presented to the ID card owner by the authentication device, see example 13, col. 17, lines 10- 16, see also Fig. 12A.

***Referring to claims 39 and 43,*** Benzler's PSPI is selected from a plurality of human ability challenge types, see claim 1, step (a).

***Referring to claims 40 and 44,*** Benzler discloses storing the PSPI in a plurality of element groups where elements of the second group are stored randomly. That is, the human ability challenge is chosen randomly from the storing means, see claim 1 step (b).

***Referring to claim 41,*** Benzler teaches that if a large number of persons has to be authenticated, each of them is supplied with an individual identity card, on which are stored the surnames and first names of people who are in the first instance only known by the owner of the identity card as well as basic and result numbers calculated from different arrangement of PSPI elements, see col. 8, lines 1-14, see also col. 7, lines 41-51.

***Referring to claim 42,*** Benzler teaches this, see col. 7, lines 41-51.

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***Referring to claim 46***, Benzler's teaches implementation of his authentication method in security technology such as access control, telebanking, etc., see col. 7, lines 24-40.

***Referring to claim 47***, Benzler teaches that a user in response to question confirms his/her action by pushing a, for example "true" or "false", button (or touch-screen field) and if the response is correct the, the user is authenticated, see col.9, lines 5-30.

***Referring to claims 48 and 49***, Benzler's PSPI comprises of two parts; principal part which, for example asks a question (i.e. a cognitive question) such as " Village A is located in country B", and PSPI complements (i.e. a response component) which are in the form of "true" or "false" buttons (i.e. identifiable graphical object), see col. 7, lines 1-9.

***Referring to claims 50 and 52***, Benzler's authentication method utilizes a large quantity of person-specific psychometrical information (PSPI) which is expressed and treated as bipartite patterns such as pairs of written (i.e. natural language) and spoken text (i.e. audio), see col. 6, lines 39-47, see also claim 1, step (a). That is, PSPI is first registered within a memory and is kept inaccessible to other people, but visible or audible without the complement and in a sequence, see abstract.

***Referring to claim 53 and 56***, in a telebanking system, Benzler discloses that PSPI (i.e. human ability challenge) of a plurality of persons are entered and stored in a central data bank (i.e. server), from where they are transmitted without their PSPI complement (i.e. response component). the person to be authenticated at remotely

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operated station (i.e. client) with a display would enter the PSPI complement (i.e. response), see claim 1 and 10. That is, in order to speed up the identification process in the case of institutions where a large number of people needs to be received at the counters and cash desks such as in banking system, the basic and result numbers (or part of PSPI) of the identity card (i.e. the human ability challenge) are transferred from the authentication device (i.e. server) into a short term data-carrier (i.e. a client), see col. 15, lines 40-51 and the response is transmitted from the display of the remote station through push buttons or touch screen fields.

***Claims 27-31*** are apparatuses corresponding to method claims 1,13 and 14.

Claims 27-31 are rejected for the same reasons provided in the statement of rejection of claims 1, 13 and 14.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 54, 55, 57 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benzler as applied to claim 21 above, and further in view of Kaufman et al, U.S. Pat. No. 5,491,752 issued Feb. 1996 (IDS filed 4/7/2007).

***Referring to claims 54 and 55***, the examiner asserts that encryption/decryption in password security /authentication is well known in the art. It would have been obvious to one of ordinary skill in the art to use encryption /decryption in Benzler authentication

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method to securely transmit and receive response component (i.e. complement part of PSPI) with the principal PSPI to countermeasure against password eavesdropping, see Kaufman et al, col. 3, lines 25-40.

*Referring to claims 57 and 58*, the teaching of Benzler suggests encoding and decoding of PSPI by introducing basic number as attributes and result numbers to the various arrangements of the PSPI by using an algorithm which is easy to implement, program and impossible to calculate the inverse function, see col. 7, lines 41-67. This constitutes property of a hash function. Furthermore, the examiner asserts that hash function is well known and used in the art and it is used to enhance the security of the system and to make sure that the content of a messages exchange over the network (such as response component) are unintelligible to an imposter, see Kaufman et al., col. 4, lines 39-65.

### **Conclusion**

5. Prior arts made of record, not relied upon:

See enclosed PT-892.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Taghi T. Arani whose telephone number is (571) 272-3787. The examiner can normally be reached on 8:00-5:30 Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Taghi T. Arani, Ph.D.  
Primary Examiner  
Art Unit 2131  
4/12/10